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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,281

05/23/2006

Matthew John Reedman

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5983

30853

7590

02/13/2008

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ROCHESTER HILLS, MI 48307

EXAMINER

CALLAWAY, JADE R

ART UNIT

PAPER NUMBER

2872

MAIL DATE

DELIVERY MODE

02/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/580,281	REEDMAN, MATTHEW JOHN	
	<b>Examiner</b>	<b>Art Unit</b>	
	JADE CALLAWAY	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendments to the specification and the claims, in the submission dated 1/8/08, are acknowledged and accepted.

### ***Response to Arguments***

2. Applicant's arguments filed 1/8/08 have been fully considered but they are not persuasive. Applicants argue that Olijnyk et al. do not disclose a clutch body receiving portion mounted between a sun gear and a clutch body because the clutch receiving portion is part of the sun gear (drive gear). The Examiner respectfully disagrees. The clutch body receiving portion (62, drive gear recess, 60 drive gear detents) is mounted (fixedly) between said sun gear (56, drive gear) and said clutch body (64, clutch). The elements are in close proximity; however the clutch receiving portion is located between the sun gear and the clutch body. The Applicants also argue that Olijnyk et al. do not disclose a clutch body mounted to and rotationally fixed to a base or that the elements of the sun gear are biased toward engagement with the clutch body. The Examiner respectfully disagrees. The Examiner notes that the clutch body (64) is mounted to and rotationally fixed (via 78 bolts, and 82 threaded longitudinal aperture) to the base (42, lower housing support). All of the elements are held together by means of the bolt and threaded aperture and are fixed to the base. The Examiner further notes that the sun gear (56, drive gear) is biased toward engagement with the clutch body (64) by means of the clutch spring. The spring influences/biases the sun gear and the clutch body towards engagement.

***Oath/Declaration***

3. The replacement oath, in the submission dated 1/8/08, is acknowledged and accepted.

***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. Abstract, line 1, delete "The present invention is"

***Claim Objections***

6. Claim 20 is objected to because it recites the limitation "said sun gear" in line 8. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Olijnyk et al. (WO 02/097922).

Consider claim 1, Olijnyk et al. teach (e.g. figures 1 and 5-6) a power-folding vehicle mirror assembly comprising: a base mountable (28, 30, 14, 40, 42, attachment strap) to a vehicle; a clutch body (64, clutch) mounted to and rotationally fixed (via 78 bolt, and 82 threaded longitudinal aperture) to the base (42, lower housing support); a sun gear (56, drive gear) slidably mounted to the base for rotation about a first axis, the sun gear biased towards engagement with the clutch body (via 70, clutch spring); a clutch body receiving portion (62, drive gear recess, 60 drive gear detents) mounted between said sun gear (56, drive gear) and said clutch body (64, clutch), said clutch body receiving portion receiving a portion of said clutch body (66, clutch detents); a mirror head assembly (11) rotatably mounted to the base; a planetary gear (54, drive worm) mounted to the mirror head assembly for rotation about a second axis, the planetary gear meshing with the sun gear; and a motor (46) operably connected to the planetary gear for driving the mirror head assembly around the sun gear, wherein, upon the application of a manual breakaway force to the mirror head assembly, the planetary gear transmits a breakaway torque to sun gear, the breakaway torque sliding the sun gear away from said clutch body receiving portion and out of engagement with the clutch body, thereby allowing rotation of the sun gear and mirror head assembly with respect to the base while maintaining mesh with the planetary gear [pg. 6, paragraph 2, pg. 7, paragraphs 1-4, pgs. 11-13].

Consider claim 2, Olijnyk et al. teach (e.g. figure 5) an assembly comprising a biasing means in the form of a spring (70, clutch spring) [pg. 7, paragraph 4].

Consider claim 3, Olijnyk et al. teach (e.g. figure 5) an assembly further comprising ramped detents (66/68) on the clutch body (64) bearing against corresponding detents (62/60) on the sun gear (56, drive gear), whereby the ramped detents enable an axial force to be generated as the detents are rotationally forced against each other, the axial force working against the spring to enable the sun gear to disengage from the clutch body thereby allowing relative rotation [pg. 7, paragraphs 3-4, pgs. 11-13].

Consider claim 4, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the planetary gear is a worm gear (54, drive worm) [pg. 7, paragraph 2].

Consider claim 5, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring comprises a disc spring (70, clutch spring) [pg. 3, paragraph 5, pg. 7, paragraph 4].

Consider claim 6, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring has a negative spring rate [pg. 3, paragraph 5].

Consider claim 7, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the first and second axes are orthogonal, the sun gear (56, drive gear) is helically formed at a first helix angle and the worm gear (54, drive worm) is helically formed at a second helix angle complimentary to the first helix angle.

Consider claim 8, Olijnyk et al. teach (e.g. figures 5-7) an assembly wherein the ramped detents (66/68 or 60/62) are ramped so that the breakaway torque is substantially the same in either breakaway direction [pgs. 11-13].

Consider claim 9, Olijnyk et al. teach (e.g. figure 1) an assembly wherein the mirror head assembly comprises: an arm (15, 16) having a proximal end rotatably mounted to the base and a distal end remote from the base; a head (12) mounted to the distal end of the arm; and a mirror (13) mounted to the head [pg. 6, paragraph 2].

Consider claim 10, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the planetary gear (54, drive worm) and motor (46) are housed within the arm (24, motor assembly) [pg. 6, paragraph 4].

Consider claim 11, Olijnyk et al. teach (e.g. figures 1 and 5-6) a clutch and reduction drive assembly comprising: a first gear (54, drive worm) mounted to a first body for rotation about a first axis; a second gear (56, drive gear) meshing with the first gear, the second gear mounted to a second body for rotation about a second axis; and a clutch mechanism having a clutch body (64, clutch) and a clutch body receiving portion (62, drive gear recess or 60, drive gear detents), the receiving portion (62, drive gear recesses) mounted between the second gear (56, drive gear), and the clutch body (64, clutch), the clutch mechanism preventing relative rotation between the clutch body and the second gear in an engaged position and allowing relative rotation between the clutch body and the second gear in a disengaged position, wherein the clutch mechanism is disengageable by movement of the second gear together with the receiving portion with respect to both the clutch body and the first gear while the second

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gear remains meshing with the first gear, the movement in a direction along the second axis of rotation [pg. 7, paragraphs 1-4; pgs. 11-13].

Consider claim 12, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the clutch mechanism is loaded by a spring (70, clutch spring) [pg. 7, paragraph 4].

Consider claim 13, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the clutch mechanism (64, clutch) further comprises ramped detents (66/68) on the clutch body bearing against corresponding detents on receiving portion (60/62), whereby the ramped detents enable an axial force to be generated as the detents are rotationally forced against each other, the axial force overcoming the load on the clutch mechanism provided by the spring thereby enabling the clutch mechanism to disengage [pg. 7, paragraph 3; pgs. 11-13].

Consider claim 14, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the first gear is a worm gear (54, drive worm) [pg. 7, paragraph 2].

Consider claim 15, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the worm gear is driven by a motor (46) [pg. 7, paragraph 2].

Consider claim 16, Olijnyk et al. teach (figure 5) an assembly wherein the motor (46) drives the worm gear through a reduction gear drive (50, motor worm gear) [pg. 7, paragraph 2].

Consider claim 17, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the reduction gear drive (50, motor worm gear) includes a further worm gear (48, drive worm) [pg. 7, paragraph 2].



Consider claim 18, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring comprises a disc spring (70, clutch spring) [pg. 3, paragraph 5; pg. 7, paragraph 4].

Consider claim 19, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring (70, clutch spring) has a negative spring rate [pg. 3, paragraph 5].

Consider claim 20, Olijnyk et al. teach (e.g. figures 1, 5-6) a clutch and reduction drive assembly comprising: a primary frame (80, lower support), a clutch body (64) mounted to and rotationally fixed to the primary frame; a primary gear (56, drive gear) slidably and rotatably fixed to the primary frame for rotation about a first axis, the primary gear biased towards engagement with the clutch body (via 70, clutch spring); a clutch body receiving portion (62, drive gear recess, 60 drive gear detents) mounted between said sun gear (56, drive gear) and said clutch body (64, clutch), said clutch body receiving portion receiving a portion of said clutch body (66, clutch detents); a secondary frame (42, housing) rotatably mounted to a base, and a second gear (54, drive worm) mounted to the secondary frame for rotation about a second axis, the secondary gear meshing with the primary gear, wherein the primary gear is movable from an engaged position in which rotation with respect to the clutch body is prevented to a disengaged position in which said clutch body (64) is removed from said clutch body receiving portion (62, drive gear recess), and rotation with respect to the clutch body occurs [pg. 7, paragraphs 1-4; pgs. 11-13].

Consider claim 21, Olijnyk et al. teach (e.g. figure 5) an assembly comprising a biasing means in the form of a spring (70, clutch spring) [pg. 7, paragraph 4].

Consider claim 22, Olijnyk et al. teach (e.g. figure 5) an assembly comprising ramped detents (66/68) on the clutch body (64) bearing against corresponding detents (60/62) on the primary gear (56, drive gear), whereby the ramped detents enable an axial force to be generated as the detents are rotationally forced against each other, the axial force working against the spring to enable the primary gear to disengage from the clutch body thereby allowing relative rotation [pg. 7, paragraph 3, pgs. 11-13].

Consider claim 23, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the secondary gear is a worm gear (54, drive worm) [pg. 7, paragraph 2].

Consider claim 24, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring comprises a disc spring (70, clutch spring) [pg. 3, paragraph 5; pg. 7, paragraph 4].

Consider claim 25, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring has a negative spring rate [pg. 3, paragraph 5].

Consider claim 26, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the first and second axes are orthogonal, the primary gear (56, drive gear) is helically formed at a first angle and the worm gear (54, drive worm) is helically formed at a second helix angle complimentary to the first helix angle.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JADE CALLAWAY whose telephone number is (571)272-8199. The examiner can normally be reached on Monday to Friday 7:00 am - 4:30 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRC

/Jade R. Callaway/

Examiner, Art Unit 2872

/Stephone B. Allen/

Supervisory Patent Examiner, Art Unit 2872